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THE WEST AMERICAN SCIENTIST

A Popular Review and Record for the Pacific Coast.
The oldest scientific magazine west of the Mississippi.

MUSEUM OF COMPARATIVE ZOOLOGY, CAMBRIDGE, MASS.

CONTENTS:

FLORA OF CALIFORNIA AND PARTS ADJACENT:—Descriptions of all the known plants of California and of Oregon, Utah, Nevada, Arizona, and Baja (Lower) California, with references to the literature, synonymy, geographical distribution, economic notes, and other information, compiled from all available sources.

PROSPECTUS:—It is our plan to devote several volumes to the review of the botany of California, which, when completed will form a full history of our plant life as far as known. This will probably consume at least five years, and requires the co-operation of every botanist interested in the subject. We also desire agents in every part of the state, to secure subscribers to the work.

NOTE:—Volume 20 was issued as Molluscan World, Volume I, in 1915. Price of this volume of 270 pages, describing about 400 genera and species of West American Mollusca, unbound, $3.00, postpaid. The index, issued separately at 50 cents, unbound, forms a check-list of over 3000 names of West American Mollusca.

Volume 21 has not yet been issued.

SUBSCRIPTION PRICE:—25 cents a number, $3.00 per volume (12 numbers about 200 pages).

BACK NUMBERS:—As far as we can supply, 25 cents each. Number 1 has been reprinted, and other out-of-print numbers will be reprinted as the demand may justify. File your orders for numbers required.

ADVERTISING RATES:—Furnished on application.

IMPORTANT NOTICE:—All special offers made prior to this date are hereby withdrawn. The editor buys, sells, exchanges books, magazines, shells, cacti and other plants, seeds, bulbs, etc. Correspondence invited.

WANTED:—Copies of Old Curiosity Shop, Ohio Naturalist, Hoosier Naturalist, Observer, Guide to Nature, and many other natural history magazines. Many numbers of California Art & Nature, Out of Door for Women, Naturalist's Companion, etc., offered—send list of desiderata.

Charles Russell Orcutt
Editor: Publisher: Owner.
No. 1705 Broadway San Diego, California.

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BROADWAY APARTMENT HOTEL COMPANY

Capital stock $50,000, in 500 shares of the par value of $100 each. 250 shares common stock, 250 shares 7% preferred. The common stock, and 50 shares of preferred are to be exchanged for the lot at the southeast corner of 17th street and Broadway, 100 feet on Broadway, 50 feet on 17th street. The remaining 200 shares are offered at par, the proceeds to be used in the erection of a modern building on said lot. The first floor will be reserved for the general store of the Broadway Co-operative Stores Company.

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C. R. Orcutt, No. 1705 Broadway, San Diego, California.

A

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Ancylus caurinus, costulatus, desperditus, engraptus, filosus, fluviatilis, fuscus, gibbosus, lacustris, nuttalli, papillaris, parallellus, rivularis, tardus, each 10c.
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Aperostoma dysoni 25c.
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Arcularia arcularia, complanata, luteostoma, scarbriuscula, thersites, each 10c.
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Bullus gouldianus 15c; media 25c; occidentalis 10c; peaseanus 25c; solitarius 10c; striatus 10c.
Bythinia leachii, pulchella, tentaculata, each 5c.
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Calliostoma annulatum 25c; canaliculatum 20c; costatum 15c; exiguus 10c; striatus 10c; supragranosum 25c.
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Caecum californicum, crebricinctum, nitidum, orcutti, each 15c.
Cardita affinis 10c; crassa 15c; floridana 10c; subquadrata 15c.
Carychium exiguum, exile, minimum, occidentalis, each 10c.
Cassis cameo $2; cornuta $2; rufa $1; tuberosa $3.
Ceriphasia canaliculata, elevata, fila, foremanii, lewisii, neglecta, subulare, sycamorense, unciale, whitei, each 10c.
Cerithidea ambigua, californica, mazatlanica, scalariformis, turrita, each 10c.
Cerithium eburneum, floridianum, incisus, lacteum, morus, morinum, muscarum, nigrescens, reticulatum, stercus-muscarum, variabilis, variegatum, versicolor, each 10c.
Chiton hartwegii 25c; stelleri $1.
Chorus belcheri 50c.
Clausilia agrigensiana, bidens, bidentata, biplicata, cana, catalonica, dubia et var. carpathica, incisa, itala et var. rufescens, laminata, lapiusae, leucostigma, ornata, papillaris, parvula, penchinata, perversa, plicata, plicatula et var. superflua, rolphii, rugosa, solida, stroebeli, each 10c.
Columbella avara 5c; carinata, 5c; chrysalloidea 10c; cribraria 5c; diminuta, 15c; fulgurans 5c; fuscata 10c; gausapata 5c; haemastoma 10c; impolita 15c; ligula 10c; lunata 5c; mercatoria 5c; nitida 5c; parva 10c; peasei 15c; pygmaea 5c; rustica 5c; scripta 10c; striata 10c; tuberosa 10c; varians 5c.
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Dentalium entalis 10c; neohexagonum 15c; pretiosum 20c; quadrangulare (fossil) 25c; tetragonum (fossil) 25c.
Diplommatinum boettgeri, concaloi, cyrtochilus, dohertyi, hyalina, quadrasi, saxicola, sowerbyi, taeniolata, each 10c.
Dolium ringens $1.
Donax laevigatus 10c; navicula 10c; punctostriatus 10c.
Dosinia discus 25c; dunkeri 25c; ponderosa 50c.
Eburna areolata 50c; japonica 25c.
Epiphragmophora areolata 25c; arrosa 15c; ayersiana 25c; californiensis 25c; catalinae 50c; dupetithouarsi 20c; fidelis 25c; gabbii 25c; intercisa 25c; kelletti 30c; levis 25c; orcutti $2; redimita 30c; ruficincta 20c; stearnsiana 25c; traskii 25c; tryoni 20c; tudiculata 25c; veatchii 25c.
Erato columbella 25c vitellina 25c.
Eulota awajiensis 30c; vulzivasa 10c.
Fasciolaria distans 25c; gigantea $1; salmo 50c; tulipa 75c.
Fissurella alternata, barbadoensis, graeca, volcano, each 10c.
Fulgar perversus $1.
Fusinus dupetithouarsi $1; proboscidiferus $2.
Gastrodonta acerra, cellaria, gularis, inornata, intertexta, interna, ligera, suppressa, each 10c.
Georissa biangulata, densilirata, javana, laevigata, regularis, subglabrata, each 10c.
Gibbula adansoni, adriatica, callichroa, parcipicta, succincta, each 15c.
Glyptostoma newberryana 50c.
Goniobasis athleta, brevispira, carinifera, catenaria, clarkii, clavaeformis, comalensis, currevana, curvilabris, decora, gracilior, hydei, laeta, laqueata, livescens, lordida, luteola, obtusa, plicifera, postii, proxima, semicarinata, spillmani, vicina, each 10c.
Haliotis cracherodii 10c to $1; corrugata 50c; gigantea $1; iris $1; rufescens $2; splendens 25c to $1.
Haminea crocata, succinea, vesicula, virescens, each 10c.
Harpa ventricosa $1.
Helicella acuta, apicina, caperata, carthusianella, cespitum, variabilis, each 10c.
Helicina acutissima 10c; adamsiana 20c; citrinella 20c; convexa 15c; occulta 10c; parva 10c; sandwichensis 15c; substriata 10c; tropica 10c.
Hemifusus colosseus $1.
Heterodonax bimaculatus, 10 varieties, $1.
Hinnites giganteus $1.
Hippopus maculatus $1.
Holospira campestris, cockerelli, danielsi, millestriata, pfeifferi, each 25c.
Hydrobia glabra, jenkinsi, ulvae, ventrosa, wetherbyi, each 5c.
Laevicardium elatum $1; mortoni 10c; substriatum 10c;
Leptothyra bacula, carpenteri, rubra, sanguinea, each 10c.
Leptoxis ampla, carinata, rubiginosa, praerosus, plicatus, sublobosus, each 10c.
Litorina angulifera, aspera, basteroti, caerulescens, irrorata, litorea, mauritiana, millegrana, muricata, palliata, philippi, planaxis, rudis, scutulata, sitkana, tenebrosa, thersistes, ziczac, each 10c.

Macoma balthica 10c; indentata 25c; inquinata 15c; secta 25c; tampaensis 20c; yoldiformis 50c.
Mangelia angulata, cerinella, stellata, each 10c.
Marginella apicina 5c; aureocincta 15c; avena 5c; californica 15c; conoidalis 10c; interrupta 25c; jewettii 20c; lucida 10c; minuta 10c; opalina 10c; pellucida 10c; philippi 15c; roscida 20c; succinea 20c; suavis 10c.
Melampus boholensis, coffeus, fasciatus, gundlachi, lineatus, luteus, olivaceus, each 10c.
Melo diadema $1; indica $2.
Melongena corona 25c; patula 50c; pugilina 50c.
Mitra episcopalis 50c.
Murex bicolor 50c; cellulosa 25c; circumtexta 25c; erinaceus 10c; gemma 50c; inflatus $1; plicatus 15c; pomum 25c; radix 25c to $1; rufus 25c; tenuispinus $1.
Nassa ambigua 10c; obsoleta 5c; vibex 5c.
Natica cancrena 15c; duplicata 25c.
Nautilus pompilius $3.
Nerita albicella 10c; bernhardti 15c; costata 15c; peloronta 10c; polita 10c; scabricostata 15c; tessellata 5c; versicolor 5c.
Neritina picta 25c; pupa 10c; reclivata 5c; virginea 5c; viridis 15c.
Odostomia aequisculpta, bisuturalis, impressa, insculpta, seminuda, trifida, each 10c.
Oliva inflata 25c; literata 20c; olorinella 25c; reticularis 20c; porphyria 50c to $1; sanguinolenta 25c; venulata 25c.
Olivella anazora 10c; biplicata 5c; bullula 10c; dama 10c; floralia 5c; gracilis 10c; jaspidea 15c; mutica 5c; nivea 5c; oryza 5c; pedroana 10c; tergina 10c; undatella 15c; volutella 15c; zonalis 10c.
Omphalotropis amoena, clavus, conica, elongatula, erosa, expansilabrum, granum, guamensis, laevis, latilabris, laticosta, ochrostoma, picta, picturata, quadrasi, rubens, semicostulata, submaritimum, each 10c.
Ostrea amara 25c; lurida 10c.
Ovula gibbosa 50c; ovum 25c; variabilis 25c.
Parastarte triquetra 25c.
Paphia decussata, grata, histrionica, laciniata, staminea, striata, undulata, each 10c.
Patula fusca 10c; rotundata 10c.
Pecten aequisulcata 10c; japonicum 50c.
Pedipes liratus $1; unisulcatus 15c.
Periploma planiuscula (argentaria) 50c.
Phasianella compta 5c; pulla 5c; pulloides 10c; speciosa 10c; tessellata 5c; vieuxi 10c.
Pholas costata 50c.
Physa acuta 10c; ancillaria 5c; boucardi 10c; contorta 10c; cubensis 5c; diaphana 5c; distinguenda 15c; elliptria 10c; gabbii 10c; gyrina 5c; heterostropha 5c; humerosa (fossil) 15c; hypnorum 5c; integer 5c; lordi 5c; maitorelli 10c; mamoi 10c; mexicana

10c; pomilio 10c; pyramidata 5c; saintsimonis 15c; squalida 10c; striata 5c; traskii 10c; virgata 10c.

Pisidium abditum, adamsi, aequilaterale, casertanum, compressum, corneum, fallax, fontinalis, fossovinum, idahoensis, novaboracense, obtusale, occidentale, peraltum, politum, roperi, splendidulum, sulcatum, virginicum, each 10c.

Placenta orbicularis 15c.

Planorbis albus 5c; armigera 5c; bicarinatus 5c; binneyi 10c; campanulatus 5c; carinatus 10c; complanatus 5c; complicatus 10c; corneus 5c; contortus 10c; corpulentus 5c; dilatatus 10c; dreryi 10c; dubius 10c; exacutus 5c; fieldi 15c; interclaria 10c; lentus 5c; lucidus 10c; marginatus 10c; marmoratus 10c; nautileus 5c; nitida 5c; opercularis 10c; parvus 5c; planorbis 5c; pronus 10c; scalaria 15c; spirorbis 5c; tenuis 10c; trivolvis 5c; tumidus 15c; vermicularis 10c; vortex 5c.

Pomatius carthusianus, gracilis, maculatus, monteserraticus, partulum, tessellatus, each 10c.

Praticolella berlandieriana 10c; griseola 10c.

Pteroceros aurantia 50c; chiragra 50c; lambis $1; rugosa $1.

Punctum pasadenae 10c.

Pupa acanthinula, anglica, aragonica, avena, avenacea, cinerea, corticaria, cylindracea, decora, dertosensis doliolum, fallax, ferrari, frumentum et var. elongata, groecum, goniostoma, ilerdensis, leptochilus; microdon, modica, monteserratica, muscorum, pediculus, pygmaea, quadrasi, quadridentata, quinquedentata, secale, semproni, sterkiana tarraconensis, umbilicata, variabilis, each 10c.

Pupoides marginatus 10c.

Pyramidula alternata 5c; cronkhitei 10c; perspectiva 5c; striatella 5c.

Pythia pantherina 25c.

Ranella californica 25c; lampas $1.

Rapana bezoar 50c.

Rissoa costata, labrosa, parva, quadrasi, similis, striata, sulcata, each 5c.

Sanguinolaria nuttalli 25c.

Siphonaria alternata, atra, lecanium, maura, sipho, each 10c.

Siphonalia kelletti $1.

Solen californicus 50c; rosaceus 10c.

Somatogyrus integer 5c; isogona 5c.

Sphaerium aureum, corneum, dentatum, fabalis, flavum, lacustris, rhomboideum, rivicola, rosaceum, occidentale, ovale, partumeum, securis, simile, solidulum, stamineum, striatinum, subtransversum, sulcatum, truncatum, each 10c.

Stenogyra beckiana, gracilis, javanicum, mauritianum, octona, paayensis, swiftiana, each 10c.

Strombus bituberculatus 25c; costatus 75c; gigas $1; gracilior 25c; granulatus 15c; isabella 25c; pugilis 25c.

Succinea avara, brevis, campestris, concoidalis, elegans, garrettiana, grosvenori, haydeni, horridana, luteola, obliqua, ovalis, oregonensis, putris, retusa, rusticana, sillimani, tlalpanensis, undulata et var. morchi, vermeta, virgata, each 10c.

Tegula ater, aureotincta, brunnea, funebrale et var, superbatum, gallina, globulus, each 10c.

Tellina carpenteri 20c.

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BOOKS RECEIVED

Perry, Horace: Theories of energy. 231 pp. $1.75. G. P. Putnam's Sons, publishers, 2 West 45th st., N. Y.

Jeffrey, Edward Charles: Anatomy of woody plants, $4. University of Chicago Press, Chicago, Ill. 478 pp. 306 ill.

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MAGDALENA BAY SHELLS

In 1917 the editor spent the month of March on the shores of Magdalena bay, Baja California, and collected about 400 species of shells, of which the following were obtained in sufficient numbers to offer for sale, or in exchange for other shells, books, etc.

Acmaea atrata Cpr. 20c.

Actaeon traskii Stearns. 25c.

Alaba jeannettae Bartsch. 15c.

Aletes squamigerus Cpr. 25c.

Angulus suffusus Dall. 20c.

Anomia peruviana Orb. 10c. Red var., valves 10c.

Arca gigantea Brod. Juniors, 10c.

Arca solida Brod. Sby. 15c.

Arcularia tiarula Kiener. 15c.

Cardium procerum Sby. 25c.

Cerithium gemmatum Hinds. 10c.

Chama pellucida Brod. 25c.

Conus fergusoni Sby. $1.

Crepidula excavata Brod. 15c.

Crepidula nummaria Gould. 25c.

Discinisca strigata Brod. 15c.

Donax lamarckii Desh. 15c.

Engina ferruginosa Reeve. 10c.

Epitonium tinctum Cpr. 25c.

Eulithidium typicum Dall. 10c.

Fasciolaria princeps Sby. Poor, 50c.

Fissurella rubropicta Pils. 15c.

Fissurella rugosa Sby. 15c.

Haliotis fulgens Phil. 25c to $1.00.

Laevicardium elenense Sby. 20c.

Lithophaga attenuata Desh. 35c.

Litorina aspersa Phil. 15c.

Litorina conspersa Phil. 15c.

Litorina varia Sby. 20c.

Lyonsia nesiotes Dall. 25c.

Macrocallista squalidus Sby. 20c.

Marginella californica parallela Dall. 20c.

Marginella politula Cooper. 25c.

Modiolus brasiliensis Lam. 25c.

Nerita ornata Sby. 25c.

Oliva incrassata Soland. 25c.

Olivella porteri Dall. 35c.

Olivella tehuelca Duclos. 15c.

Ostrea fisheri Dall. 50c.

Pecten circularis Sby. 25c.

Pedalion chemnitzianum Orb. 15c.

Phyllonotus radix Gmelin. 25c. to $1.

Pteria peruviana Reeve. 25c.

Purpura nuttalli Conr. 10c.

Pyramidella adamsi Cpr. 35c.

Siphonaria maura Sby. 15c.

Strigilla fucata Gould. 25c.

Tivela delesserti Desh. 15c.

Tivela planulata Sby. 20c.

Tritonalia poulsonii Cpr. 20c.

Vasum cestus Brod. Fossil, $1.

Williamia galapagana Dall. 25c.

C. R. ORCUTT,
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